R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE CLAIMS

Independent claim 1 has been amended to more clearly recite "a plurality of exhaust mechanism" instead of "exhaust means," and to recite that "each of the exhaust mechanisms installed in the inner chambers includes a vibration-free type vacuum pump and a vibrating type vacuum pump connected in parallel," based on (now canceled) claim 3. Independent claim 8 has been similarly amended to more clearly recite "a plurality of exhaust mechanism" instead of "exhaust means," and to recite that "each of the exhaust mechanisms installed in the inner chambers includes a vibration-free type vacuum pump and a vibrating type vacuum pump connected in parallel," based on (now canceled) claim 9.

In addition, claims 5 and 6 have been amended to depend from claim 1, instead of from (now canceled) claim 3, and claim 6 has been amended to better accord with amended claim 1. Claim 13 has been amended to depend from claim 8 instead of from (now canceled) claim 9, and to better accord with amended claim 8.

Still further, claim 11 has been amended to recite a contamination removal mechanism installed in the lens barrel as shown, for example, in Fig. 4.

Yet still further, the claims have been amended to make some minor improvements, including some minor grammatical and antecedent basis improvements, to put them in better U.S. form.

Withdrawn claims 4, 7, 10, and 14, moreover, have been canceled, without prejudice.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

THE PRIOR ART REJECTION

Claims 1, 2, 8, and 12 were rejected under 35 USC 103 as being obvious in view of the combination of USP 6,031,598 ("Tichenor et al") and WO 01/22480 ("Tanaka"), and claims 3, 6, 9, 11, and 13 were rejected under 35 USC 103 as being obvious in view of the combination of Tichenor et al, Tanaka, and USP 6,288,357 ("Dyer et al"). These rejections, however, are respectfully traversed with respect to the claims as amended above.

According to the present invention as recited in amended independent claim 1, a vacuum apparatus is provided which comprises: (i) a plurality of components that are operated in a vacuum, (ii) a plurality of inner chambers that respectively accommodate the plurality of components, (iii) bellows that connect the respective inner chambers, (iv) an outer chamber that

accommodates the plurality of inner chambers as a whole, and (v) a plurality of exhaust mechanisms installed in the inner chambers and the outer chamber, respectively.

In addition, according to amended independent claim 1, each of the exhaust mechanisms installed in the inner chambers includes a vibration-free type vacuum pump and a vibrating type vacuum pump connected in parallel.

Dyer et al has been cited as disclosing a vibration-free type vacuum pump and a vibrating type vacuum pump installed in parallel. See the bottom of page 6 of the Office Action.

It is respectfully submitted, however, that even if Tichenor et al, Tanaka, and Dyer et al were all properly combinable, the resulting combination would not fairly suggest the structure recited in amended claim 1 whereby an outer chamber accommodates a plurality of inner chambers, bellows connect the respective inner chambers, a plurality of exhaust mechanisms are installed in the inner chambers and the outer chamber, respectively, and each of the exhaust mechanisms installed in the inner chambers includes a vibration-free type vacuum pump and a vibrating type vacuum pump connected in parallel.

With the structure of the present invention as recited in amended independent claim 1, the outer chamber has a respective exhaust mechanism installed therein and each of the inner chambers has a respective exhaust mechanism installed therein,

bellows connect the respective inner chambers, and each of the exhaust mechanisms installed in the inner chambers includes a vibration-free type vacuum pump and a vibrating type vacuum pump connected in parallel.

Because each of the exhaust mechanisms installed in the inner chambers has a vibration-free type vacuum pump and a vibrating type vacuum pump that are installed in parallel, the apparatus of the claimed present invention can be provided such that either both pumps are operated or only the vibrating type pump is operated until the insides of the inner chambers reach a high-vacuum state. A high-vacuum state can thus be realized quickly. After the high-vacuum state is achieved, the apparatus can be provided to operate only the vibration-free vacuum pump during subsequent operation of the components (claims 6 and 13). As a result, the transmission of vibrations from the pump during the operation of the components can be reduced, so that the precision of the components can be ensured to an even greater degree.

It is respectfully submitted that Tichenor et al, Tanaka, and Dyer et al do not disclose or suggest the structure or advantages of the apparatus recited in amended independent claim 1.

Accordingly, it is respectfully submitted that amended independent claim 1 clearly patentably distinguishes over Tichenor

et al, Tanaka, and Dyer et al in any combination consistent with the respective fair teachings thereof under 35 USC 103.

And for similar reasons, it is respectfully submitted that amended independent claim 8 patentably distinguishes over Tichenor et al, Tanaka, and Dyer et al in any combination consistent with the respective fair teachings thereof under 35 USC 103.

In view of the foregoing, it is respectfully submitted that amended independent claims 1 and 8 and all of the claims respectively depending therefrom patentably distinguish over Tichenor et al, Tanaka, and Dyer et al under 35 USC 103.

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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,

/Douglas Holtz/

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